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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/673,360	SAI ET AL.	
	Examiner	Art Unit	
	HILINA S. KASSA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 December 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 4-6 and 11-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 4-6 and 11-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/15/08.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

1. The amendment submitted on 12/15/2008 has been acknowledged.

Response to Arguments

2. Applicant's arguments filed on 12/03/2008 have been fully considered but they are not persuasive.

(1) argument 1:

Applicant argues that neither Yoshihara nor Munakata do not disclose or suggest the printing apparatus determining if condition of a third print region on the single medium corresponding to a scan movement which is to be performed thereafter includes a part of said first print region and a part of said second print region is met.

With respect to Applicant's argument, Yoshihara discloses if said printing apparatus determines that a third print region on the single medium corresponding to a scan movement which is to be performed thereafter includes a part of said first print region corresponding to said first original image which has been read and a part of said second print region is met (**fig. 17 (a-d) column 12, line 52-column 13, line 7; note that the images read are processed to be outputted and the character comparison unit compares an frame edge**

portion of the data where the it is present i.e. considered as the print region without the data). Thus, the stated argument is explained in Yoshihara.

(2) argument 2:

Applicant argues that Munakata does not disclose or suggest determining if the condition of whether printing of said first original image has started before the reading operation of said original image has finished is met.

With respect to Applicant's argument, Munakata discloses determining if the condition of whether printing of said first original image has started before the reading operation of said original image has finished is met (**column 12, line 56-column 13, line 10; note that the after reading the original image as also shown in figure 10, the image formation unit i.e. printer performs printing using the printing medium as the scanner reads images during image formation**). Thus, the stated argument is explained in Munakata. It would have been obvious to modify Yoshihara with Munakata since both are from the same field of endeavor.

(3) argument 3:

Applicant argues that Okada does not disclose or suggest to place the scan movement on hold when the conditions set forth in claim 4 are met.

With respect to Applicant's argument, Okada discloses said printer unit puts the scan movement on hold (**column 11, line 63-column 12, line 5; note that the scanning movement could be put on hold or standby state**). Even though the conditions set for the claimed invention is not the same as the Okada reference. Thus, it is not novel to hold scan movement for certain conditions which in this case it would have been obvious to combine/modify Yoshihara and Munakata with Okada since all of them are from the same field of endeavor.

(4) argument 4:

Applicant argues that Fujii does not disclose or suggest print mode is instructed with respect to each reading operation such that different print modes result on the same medium.

With respect to Applicant's argument, Fujii discloses print mode is instructed with respect to each reading operation such that different print modes result on the same medium (**paragraph [0006], lines 2-18; note that the printing means processes the different modes for different color read by the reading unit i.e. print mode**). Thus, the stated argument is described in Fujii. Yoshihara et al. and Fujii are combinable because they are from the same field of endeavor.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara et al. (US Patent Number 5,465,463) and Munakata et al. (US Patent Number 6,217,143) as applied in claim 1 and further in view of Okada (US Patent Number 6,711,626 B1).

(1) regarding claim 4:

As shown in figures 1 and 2, Yoshihara et al. disclose a printing apparatus (copier apparatus, figure 2; column 3, lines 58-59; note that a copier apparatus is considered as the printing apparatus as it discloses an image output unit) comprising:

a scanner unit (24, figure 3) for reading an original image (column 4, lines 20-24; note that the image reading unit comprises a scanner unit which reads an image original 23 figure 3);

an instruction unit (s2, figure 5) for receiving an instruction from a user (column 5, lines 40-43; note that the instruction unit is considered as the key that get depressed by the operator when image needs to be read),

wherein a single instruction input through said instruction unit is for instruction said scanner unit to perform a reading operation of a single piece of said original image (**s3 reading image, figure 5; column 5, lines 40-44; note that amongst divided original image a single image gets read according to an instruction from the operator and the read image gets stored in bit-map memory**); and

a printer unit (**s11-s12, figure 5**) for printing said original image that has been read on a medium (**column 6, lines 25-31; note that according to operator's instruction, the read image that has been stored in the bit-map memory gets outputted or copied onto the recording paper**),

when printing at least a first original image and a second original image on a single medium (**column 8, lines 6-9; note that two original images are read and the two image get outputted on a recording medium in lines 56-62**), by laying out said first original image on a first print region of the single medium and said second original image on a second print region of said single medium (**fig. 10(1-5), column 8, lines 47-55; note that the two original images read are connected to be outputted in one single medium A3**),

said printer unit performs printing by repeating scan movement of a head with respect to said medium (**column 20, lines 36-40; note that subsequent scanning is performed by the printer unit**) and carrying of said medium in a direction orthogonal to a direction of said scan movement (**column 16, lines 39-50; note that the scanning is made perpendicular to the plan of the recording paper**); and if said printing apparatus determines that a third print region on the single medium corresponding to a

scan movement which is to be performed thereafter includes a part of said first print region corresponding to said first original image which has been read (**fig. 17 (a-d)** **column 12, line 52-column 13, line 7; note that the images read are processed to be outputted and the character comparison unit compares an frame edge portion of the data where the it is present i.e. considered as the print region without the data).**

Yoshihara et al. disclose all of the subject matter as described as above except for specifically teaching wherein, said printer unit starts printing, on said single medium, said first original image after the reading operation of said first original image regardless of whether the reading operation of said second original image has finished and a part of said second print region corresponding to said second original image which has not yet been read.

However, as shown in figure 10, Munakata et al. disclose wherein, said first original image after the reading operation of said first original image regardless of whether the reading operation of said second original image has finished (**column 12, line 56-column 13, line 10; note that the after reading the original image as also shown in figure 10, the image formation unit i.e. printer performs printing using the printing medium as the scanner reads images during image formation**) a part of said second print region corresponding to said second original image which has not yet been read (**column 12, line 56-column 13, line 10; note that the after reading the original image as also shown in figure 10, the image formation unit i.e. printer**

performs printing using the printing medium as the scanner reads images during image formation).

Yoshihara et al. and Munakata et al. are combinable because they are from the same field of endeavor which is network printing and image processing. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to wherein, said printer unit starts printing, on said single medium, said first original image after the reading operation of said first original image regardless of whether the reading operation of said second original image has finished and a part of said second print region corresponding to said second original image which has not yet been read. The suggestion/motivation for doing so would have been to enhance the speed of the apparatus and to eliminate feeding error of print medium thereby obtaining a high-quality image (column 5, lines 24-30). Therefore, it would have been obvious to combine Yoshihara et al. with Munakata et al. to obtain the invention as specified in claim 4.

Yoshihara et al. and Munakata et al. disclose all of the subject matter as described as above except for specifically teaching said printer unit puts the scan movement on hold.

However, Okada discloses said printer unit puts the scan movement on hold (**column 11, line 63-column 12, line 5; note that the scanning movement could be put on hold or standby state).**

Yoshihara et al., Munakata et al. and Okada are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it

would have been obvious to a person of ordinary skilled in the art to have said printer unit puts the scan movement on hold. The suggestion/motivation for doing so would have been in order to efficiently control the performance of the printing apparatus (column 1, lines 55-60). Therefore, it would have been obvious to combine Yoshihara et al., Munakata et al. with Okada to obtain the invention as specified in claim 4.

(2) regarding claim 5:

Yoshihara et al. disclose second image is read (**column 11, line 66-column 12, line 12; note that the second image gets read**) and printing is executed for said first image and said second image and said second original image is performed (**column 12, lines 15-19; note that address is assigned for the first and second images and in lines 36-40, the printer outputs the images**).

Yoshihara et al. and Munakata et al. all of the subject matter as described as above except for specifically teaching when said second image is read while said single scan movement is being put on hold, said single scan movement put on hold is executed for printing said first image and said second image.

However, Okada discloses when said second image is read while said single scan movement is being put on hold (**column 11, line 63-column 12, line 5; note that the scanning movement could be put on hold or standby state**), said single scan movement put on hold is executed for printing said first image and said second image (**column 12, lines 15-20; note that the printer performs copying**).

Yoshihara et al., Munakata et al. and Okada are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art when said second image is read while said single scan movement is being put on hold, said single scan movement put on hold is executed for printing said first image and said second image. The suggestion/motivation for doing so would have been in order to efficiently control the performance of the printing apparatus (column 1, lines 55-60). Therefore, it would have been obvious to combine Yoshihara et al., Munakata et al. with Okada to obtain the invention as specified in claim 5.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara et al. (US Patent Number 5,465,463) and Munakata et al. (US Patent Number 6,217,143) and Okada (US Patent Number 6,711,626 B1) as applied in claim 4 above, and further in view of Miyake et al. (US Patent Number 4,872,035).

(1) regarding claim 6:

Yoshihara et al., Munakata et al. and Okada disclose all of the subject matter as described as above except for specifically teaching wherein when the printing apparatus receives an instruction to cancel the reading operation of said second image after said single scan movement is being put on hold, said single scan movement put on hold is executed and printing of said third print region of said first original image is performed.

However, Miyake et al. teaches an image forming apparatus wherein when the printing apparatus receives an instruction to cancel the reading operation of said second image (**52, figure 5-3; column 5, lines 30-32**), after said single scan movement is being put on hold, said single scan movement put on hold is executed and printing of said third print region of said first original image is performed (**column 5, lines 30-35**); **note that even if the stop key is pressed, the copier resumes printing after processing the cycle which already been scanned is executed**).

Yoshihara et al., Munakata et al. and Okada and Miyake et al. are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art wherein when the printing apparatus receives an instruction to cancel the reading operation of said second image after said single scan movement is being put on hold, said single scan movement put on hold is executed and printing of said third print region of said first original image is performed. The suggestion/motivation for doing so would have been for advance reliability. Therefore, it would have been obvious to combine Yoshihara et al., Munakata et al. and Okada with Miyake et al. to obtain the invention as specified in claim 6.

6. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara et al. (US Patent Number 5,465,463) in view of Fujii (Japanese Publication Number 2002-247382).

(1) regarding claim 11:

As shown in figures 1 and 2, Yoshihara et al. disclose a printing apparatus
**(copier apparatus, figure 2; column 3, lines 58-59; note that a copier apparatus is
considered as the printing apparatus as it discloses an image output unit)**
comprising:

a scanner unit (**24, figure 3**) for reading an original image (**column 4, lines 20-
24; note that the image reading unit comprises a scanner unit which reads an
image original 23 figure 3**);

an instruction unit (**s2, figure 5**) for receiving an instruction from a user (**column
5, lines 40-43; note that the instruction unit is considered as the key that get
depressed by the operator when image needs to be read**), and

wherein a single instruction input through said instruction unit is for instruction
said scanner unit to perform a reading operation of a single piece of said original image
**(s3 reading image, figure 5; column 5, lines 40-44; note that amongst divided
original image a single image gets read according to an instruction from the
operator and the read image gets stored in bit-map memory)**; and

a printer unit (**s11-s12, figure 5**) for printing said original image that has been
read on a medium (**column 6, lines 25-31; note that according to operator's
instruction, the read image that has been stored in the bit-map memory gets
outputted or copied onto the recording paper**),

when printing at least a first original image and a second original image on a
single medium (**column 8, lines 6-9; note that two original images are read and the**

two image get outputted on a recording medium in lines 56-62), by laying out said first original image on a first print region of the single medium and laying out said second original image on a second print region of said single medium (fig. 10(1-5), column 8, lines 47-55; note that the two original images read are connected to be outputted in one single medium A3).

Yoshihara et al. disclose all of the subject matter as described as above except for specifically teaching wherein each said instruction corresponds to one of a plurality of print modes; and said printer unit prints the first image in a print mode according to a first reading instruction of said first original image and prints the second image in a print mode according to a second reading instruction of said second original image.

However, Fujii discloses wherein each said instruction corresponds to one of a plurality of print modes (**paragraph [0004], lines 3-6; note that user sets the color or monochrome mode**); and said printer unit prints the first image in a print mode according to a first reading instruction of said first original image and prints the second image in a print mode according to a second reading instruction of said second original image (**paragraph [0006], lines 2-6; note that the printing means processes the different modes**).

Yoshihara et al. and Fujii are combinable because they are from the same field of endeavor, which is printing apparatus. At the time of the invention, it would have been obvious to a person of ordinary skill in the art wherein each said instruction corresponds to one of a plurality of print modes; and said printer unit prints the first image in a print mode according to a first reading instruction of said first original image and prints the

second image in a print mode according to a second reading instruction of said second original image. The suggestion/motivation for doing so would have been in order to utilize efficient and versatile apparatus. Therefore, it would have been obvious to combine Yoshihara et al. with Fujii to obtain the invention as specified in claim 11.

(2) regarding claim 12:

Yoshihara et al. discloses all of the subject matter as described as above except for teaching wherein: wherein: said plurality of print modes include a monochrome print mode and a color print mode.

However, Fujii discloses wherein: said plurality of print modes include a monochrome print mode and a color print mode (**paragraph [0010], lines 1-8; note that the color or monochrome copy is utilized**).

Yoshihara et al. and Fujii are combinable because they are from the same field of endeavor which is printing apparatus. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have monochrome and color print mode. The suggestion/motivation for doing so would have been in order to utilize efficient and versatile apparatus. Therefore, it would have been obvious to combine Yoshihara et al. with Fujii to obtain the invention as specified in claim 12.

7. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara et al. (US Patent Number 5,465,463) and Fujii (Japanese Publication

Number 2002-247382) as applied in claim 11, and further in view of Fresk et al. (US Patent Number 6,618,161 B1).

(1) regarding claim 13:

Yoshihara et al. and Fujii disclose all of the subject matter as described as above except for teaching wherein: said plurality of print modes include a low-resolution print mode a high-resolution print mode.

However, Fresk et al. disclose said plurality of print modes include a low-resolution print mode a high-resolution print mode (**column 4, lines 1-6; note that the copier is a multi-resolution capable engine**).

Yoshihara et al., Fujii and Fresk et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have quality modes that differ in print resolution. The suggestion/motivation for doing so would have been in order to acquire better quality and versatility. Therefore, it would have been obvious to combine Yoshihara et al. and Fujii with Fresk et al. to obtain the invention as specified in claim 13.

(2) regarding claim 14:

Yoshihara et al. and Fujii disclose all of the subject matter as described as above except for teaching wherein said instruction unit has instruction buttons corresponding respectively to said plurality of print modes.

However, Fresk et al. disclose wherein said instruction unit has instruction buttons corresponding respectively to said plurality of print modes (**column 8, lines 59-61; note that user utilizes buttons to make selection**).

Yoshihara et al., Fujii and Fresk et al. are combinable because they are from the same filed of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art wherein said instruction unit has instruction buttons corresponding respectively to said plurality of print modes. The suggestion/motivation for doing so would have been in order to easily access desired selection. Therefore, it would have been obvious to combine Yoshihara et al. and Fujii with Fresk et al. to obtain the invention as specified in claim 14.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore could be reached at (571) 272- 7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pari-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hilina S Kassa/
Examiner, Art Unit 2625
March 11, 2009

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625